

### **REMARKS**

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-61 and 66-69 are presently active in this case. The present Amendment amends Claims 1, 9-18, 22, 25, 27, 29, 31, 33, 36, 41-47, 49-51, 53-58, and 60 without introducing any new matter; and cancels Claims 62-65 without prejudice or disclaimer.

The outstanding Office Action objected to the Abstract of the Disclosure for exceeding 150 words, and to some portions of the specification for having incomplete references to background art. Claims 55-62 and 66 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Claims 1, 18, 22-25, 27, 29, 31, 33, 36, 41, 53-54, 58-63, 65-67, and 69 were rejected under 35 U.S.C. § 102(e) as anticipated by Howard et al. (U.S. Patent No. 6,629,198, hereinafter "Howard"). Claims 9-17, 19-21, 26, 28, 30, 32, 34-35, 37-40, 42-52, 64 and 68 were allowed, and Claims 2-8 were indicated as allowable if rewritten in independent form.

Applicants acknowledge with appreciation the indication of allowable subject matter. However, because Applicants believe that independent Claim 1 as amended includes subject matter that is not found in the applied rejection reference, dependent Claims 2-8 are maintained in dependent form a present time.

In response to the objection to the specification, and the Abstract of the disclosure, the specification is amended at the portions noted in the pending Office Action to provide correct references to the background art and to delete a hyperlink, and the Abstract is amended so as not to exceed 150 words. Moreover, the Title of the invention is amended to reflect a change in the listing of claims. No new matter has been added.

Applicants' Claims 62-65 that are directed to a program are herewith cancelled without prejudice or disclaimer.

In response to the rejection of Claims 55-62 and 66 under 35 U.S.C. § 112, second paragraph, Applicants' independent Claim 55 is herewith amended to clarify how the second privileged ID is generated. In particular, independent Claim 55 is amended to recite that the first privileged ID is an encrypted text of tag ID information; the second privileged ID is a new encrypted text of the tag ID information corresponding to the first privileged ID. These amendments to independent Claim 55 find non-limiting support in Applicants' disclosure as originally filed, for example in embodiment 23 of Applicants' disclosure, starting in the specification at page 108. No new matter has been added.

Moreover, the present Amendment amends Claims 1, 9-18, 22, 25, 27, 29, 31, 33, 36, 41-47, 49-51, 53-54, 56-58, and 60 to correct some formal features, and to clarify certain features related to the confidential value and the new confidential value, and/or regarding the first function F1 and the second function F2. These features find non-limiting support in Applicants' specification as originally filed.

In response to the rejections of Claims 1, 18, 22-25, 27, 29, 31, 33, 36, 41, 53, 54, 58-63, 65-67, and 69 under U.S.C. § 102 (e) as being anticipated by Howard, Applicants respectfully traverse the rejection, and request reconsideration thereof, as next discussed.

Briefly summarizing, Applicants' independent Claim 1 is directed to a tag privacy protection method for preventing privacy information of a user from being acquired from information which is delivered from a tag device. The protection method includes the steps of: delivering tag output information from an output section of the tag device, the tag output information corresponding to a confidential value stored in a confidential value memory of the tag device, the confidential value being a mapping of tag ID information; reading out the confidential value or elements thereof from the confidential value memory, applying a first function to the confidential value or the elements thereof to generate a new confidential value, an inverse image of the first function being difficult to obtain, and updating the

confidential value in the confidential value memory with the new confidential value by overwriting in a first calculator of the tag device, the new confidential value differing from the confidential value, and both the new confidential value and the confidential value corresponding to the identical tag ID information.

Turning now to the applied reference, Howard is directed to a method of data storage in computer systems and, the storage of data blocks and associated-hash values in a non-volatile log storage, enabling crash recovery after system failures. (Howard, Abstract.) Howard explains that a checksum method employs the hash function for verification to see whether the data returned in response to a read from a particular data block location is in fact the same data that was previously written to that data block address (Howard, col. 1, ll. 31-48.) However, Howard's checksum method fails to teach all the features of Applicants' independent Claims 1, 53-54, and 58. In the reference Howard it is described that one hash value corresponding one data element, or the hash value of the data is changed if the data is changed. (Howard, col. 4, ll. 1-17.) Therefore, with Howard's system, it is possible to detect a change in data by comparing a previous hash value with a new hash value. (Howard, col. 4, ll. 52-67, regarding "hash log 134."). If a plurality of different hash values would correspond to identical data, it is impossible with Howard's system to verify whether the data was changed or not.

On the other hand, with the features of Applicants' independent Claim 1 a method for preventing a tracing of the distribution process of tag device by a third party is provided. (See specification, ¶¶ [0006]-[0007]). In a case where the tag output information from the tag device is always same, the third party can gather knowledge on the distribution process of a tag device based on the identical tag output information. Therefore, with the features of Applicants' independent Claim 1, it is possible to prevent tracing the distribution process of tag device, by updating the confidential value stored in the tag device to new confidential

value to change the tag output information from the tag device. The confidential value is a mapping of tag ID information; a first function that is applied to the confidential value or the elements thereof to generate a new confidential value to update the confidential value in the confidential value memory with the new confidential value. The new confidential value differs from the confidential value, and both the new confidential value and the confidential value correspond to the identical tag ID information. In other words, with the features of Applicants' independent Claim 1 it is possible that a plurality of kinds of confidential values corresponding one tag ID information are provided. Please note that the above description of the features of Applicants' independent Claim 1 is provided for explanatory purposes only, and shall not be used to limit the scope of the claims in any fashion.

As described above, Howard teaches a checksum technology that is based on the fact that one hash value corresponds to one data element. Therefore, Howard fails to teach the step of applying a first function to the confidential value or the elements thereof to generate a new confidential value, the new confidential value differing from the confidential value, and both the new confidential value and the confidential value corresponding to the identical tag ID information, as required by Applicants' independent Claim 1. Applicants respectfully traverse, and request reconsideration of the rejection based on this reference.

Independent Claims 53-54, and 58 recite features that are similar to the features argued above with respect to patentability of Applicants' independent Claim 1, but are different in scope and/or directed to different statutory classes. Accordingly, for the reasons stated above for the patentability of Claim 1, Applicants respectfully submit that the rejections of Claims 53-54, and 58, and the rejections of all associated dependent claims, are also believed to be overcome in view of the arguments regarding independent Claim 1.

Moreover, as discussed above, Claims 18, 22-25, 27, 29, 31, 33, 36 and 41 are amended. In particular, these claims are amended to recite that an inverse image of the first

function F1 is difficult to obtain, and that the second function F2 disturbs a relationship between elements of a definition domain and a mapping thereof. These features find non-limiting support in Applicants' disclosure as originally filed, for example in the specification at pages 14-15, and in paragraph [0019]. No new matter has been added. Please note that the amended Claims 18, 22-25, 27, 29, 31, 33, 36, 41 now recite features that are similar to the features of Applicants' allowable dependent Claim 2.

In response to the rejections of Claims 18, 22-25, 27, 29, 31, 33, 36, and 41 under U.S.C. § 102(e) as being anticipated by Howard, Applicants respectfully traverse the rejection, and request reconsideration thereof, as next discussed.

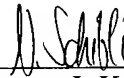
As discussed above, Applicants' Claims 18, 22-25, 27, 29, 31, 33, 36, and 41 now recite that an inverse image of the first function F1 is difficult to obtain, and that the second function F2 disturbs a relationship between elements of a definition domain and a mapping thereof. The applied reference Howard fails to teach these features. In especially, because by using F2 disturbs a relationship between elements of a definition domain and a mapping thereof, the features according to Applicants' Claims 18, 22-25, 27, 29, 31, 33, 36, 41 can present the advantage that it is difficult for the third party to know the relationship between the tag output information and the data stored in the memory of the tag device even if the third party acquired the memory of the tag device.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-61 and 66-69 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

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